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1. (Previously presented) A method for regulating expression of a tet operator-linked gene in a cell of a subject, comprising:

introducing into the cell a first nucleic acid molecule comprising the *tet* operator-linked gene;

introducing into the cell a second nucleic acid molecule encoding a tetracycline-controllable transactivator (tTA), the tTA comprising a Tet repressor operably linked to a polypeptide which directly or indirectly activates transcription in eucaryotic cells;

wherein the first and second nucleic acid molecules are not covalently linked to each other; and

modulating the concentration of a tetracycline, or analogue thereof, in the subject.

18. **(Previously presented)** A method for regulating expression of a *tet* operator-linked gene in a cell of a subject, comprising:

introducing into the cell a single nucleic acid molecule comprising the *tet* operator-linked gene and also encoding a tetracycline-controllable transactivator (tTA), the tTA comprising a Tet repressor operably linked to a polypeptide which directly or indirectly activates transcription in eucaryotic cells; and

modulating the concentration of a tetracycline, or analogue thereof, in the subject.

- 2. **(Previously presented)** The method of claim 1 or 18, wherein the Tet repressor of the tTA is a Tn10-derived Tet repressor.
- 3. **(Previously presented)** The method of claim 1 or 18, wherein the polypeptide of the tTA which directly or indirectly activates transcription in eucaryotic cells is from herpes simplex virus virion protein 16.
- 4. **(Previously presented)** The method of claim 18, wherein the nucleic acid molecule encoding the tTA is integrated randomly in a chromosome of the cell.
- 5. **(Previously presented)** The method of claim 18, wherein the nucleic acid molecule encoding the tTA is integrated at a predetermined location within a chromosome of the cell.

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6. **(Previously presented)** The method of claim 1 or 18, wherein the nucleic acid molecule encoding the tTA is introduced into the cell *ex vivo*, the method further comprising administering the cell to the subject.

## Claims 7-8. (Canceled)

- 9. **(Previously presented)** The method of claim 1 or 18, wherein the tetracycline analogue is anhydrotetracycline, doxycycline or cyanotetracycline.
- 10. **(Previously presented)** A method for regulating expression of a *tet* operator-linked gene in a cell of a subject, comprising:

obtaining the cell from the subject;

introducing into the cell a first nucleic acid molecule comprising the tet operator-linked gene;

introducing into the cell a second nucleic acid molecule encoding a tetracycline-controllable transactivator (tTA), the tTA comprising a Tet repressor operably linked to a polypeptide which directly or indirectly activates transcription in eucaryotic cells, to form a modified cell;

wherein the first and second nucleic acid molecules are not covalently linked to each other;

administering the modified cell to the subject; and modulating the concentration of a tetracycline, or analogue thereof, in the subject.

19. **(Previously presented)** A method for regulating expression of a *tet* operator-linked gene in a cell of a subject, comprising:

obtaining the cell from the subject;

introducing into the cell a single nucleic acid molecule comprising the *tet* operator-linked gene and also encoding a tetracycline-controllable transactivator (tTA), the tTA comprising a Tet repressor operably linked to a polypeptide which directly or indirectly activates transcription in eucaryotic cells, to form a modified cell;

administering the modified cell to the subject; and modulating the concentration of a tetracycline, or analogue thereof, in the subject.

11. (Previously presented) The method of claim 10 or 19, wherein the Tet repressor of the tTA is a Tn10-derived Tet repressor.

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12. **(Previously presented)** The method of claim 10 or 19, wherein the polypeptide of the tTA which directly or indirectly activates transcription in eucaryotic cells is from herpes simplex virus virion protein 16.

- 13. **(Previously presented)** The method of claim 10 or 19, wherein the nucleic acid molecule encoding the tTA is integrated randomly in a chromosome of the cell.
- 14. **(Previously presented)** The method of claim 10 or 19, wherein the nucleic acid molecule encoding the tTA is integrated by homologous recombination at a predetermined location within a chromosome of the cell.

Claims 15-16. (Canceled)

17. **(Previously presented)** The method of claim 10 or 19, wherein the tetracycline analogue is anhydrotetracycline, doxycycline or cyanotetracycline.